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ABSTRACT

A follow-up study of former architectural technology (ATE) students at Harper College was conducted to evaluate the program and to provide planning data. Students who had enrolled in three or more ATE courses between 1974 and spring 1977 provided a target population of 190 students to whom the survey instrument was mailed. After non-respondents were interviewed by phone, a response rate of 64% was achieved. Results showed that most respondents had been in the architecture technology associate degree program. About 60% were employed full-time and another 20% part-time. Most of the remaining 20% were in college. The most frequent job duties reported were drafting, surveying, carpentry, and electrical skills. Only 12% of the duties reported were unrelated to ATE. The average salary reported was over $16,000. Even though ATE was not designed as a transfer program, many respondents continued their education after leaving Harper. Approximately 42% either had achieved or aspired to eventually achieve baccalaureate degrees. Those transferring demonstrated an average 2.74 grade point average at their new college compared to their 2.66 average at Harper. Three-fourths of the students' courses were able to be transferred. Survey results are detailed and the survey instrument is appended. (Author/MB)

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FOLLOW-UP SURVEY OF FORMER ARCHITECTURE TECHNOLOGY STUDENTS

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JC 790 274

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ABSTRACT

THE PURPOSE OF THIS STUDY WAS TO FOLLOW FORMER ARCHITECTURAL TECHNOLOGY STUDENTS IN ORDER TO EVALUATE THE PROGRAM AND TO PROVIDE DATA FOR FUTURE PLANNING. STUDENTS WHO HAD ENROLLED IN THREE OR MORE ATE COURSES BETWEEN 1974 AND SPRING 1977 WERE IDENTIFIED PROVIDING A TARGET POPULATION OF 190 STUDENTS. THE SURVEY INSTRUMENT WAS MAILED TO THIS POPULATION AND AFTER THREE WEEKS THE NON-RESPONDENTS WERE INTERVIEWED OVER THE TELEPHONE. AFTER THIS FOLLOW-UP PROCEDURE WAS COMPLETED, A RESPONSE RATE OF 64 PERCENT WAS ACHIEVED.

RESULTS OF THE SURVEY SHOWED THAT MOST OF THOSE IN THE TARGET POPULATION TAKING THREE OR MORE ATE COURSES REPORTED THEY WERE IN THE ARCHITECTURE TECHNOLOGY ASSOCIATE DEGREE PROGRAM. THE EMPLOYMENT RECORD OF THIS POPULATION IS EXCELLENT AS 60 PERCENT ARE EMPLOYED FULL-TIME AND ANOTHER 20 PERCENT PART-TIME. ALMOST ALL THE REST ARE IN COLLEGE. THE MOST FREQUENT JOB DUTIES REPORTED WERE DRAFTING AND ESTIMATING AND THESE DUTIES WERE FOLLOWED BY DESIGN, LAYOUT, PLANNING, SURVEYING, CARPENTRY AND ELECTRICAL SKILLS. ONLY 12 PERCENT OF THE JOB DUTIES REPORTED WERE UNRELATED TO ARCHITECTURAL TECHNOLOGY. THE AVERAGE SALARY OF THESE FORMER STUDENTS IS OVER $16,000 WHICH IS ANOTHER GOOD SIGN OF THEIR SUCCESS.

EVEN THOUGH ARCHITECTURAL TECHNOLOGY IS NOT DESIGNED AS A TRANSFER PROGRAM, MANY ARE CONTINUING THEIR EDUCATION AFTER LEAVING HARPER. SOME HAVE ALREADY ACHIEVED A BACHELORS DEGREE AND SOME 28 PERCENT HAVE ALREADY ENROLLED IN COLLEGE SINCE LEAVING HARPER. MOREOVER, 42 PERCENT EITHER HAVE OR EVENTUALLY ASPIRE TO ACHIEVE A BACHELORS DEGREE IN THE FUTURE. THOSE WHO HAVE TRANSFERRED HAVE PERFORMED WELL ACHIEVEING A 2.74 GPA AT THEIR NEW COLLEGE COMPARED TO THEIR 2.66 AVERAGE AT HARPER. MOREOVER, THEY HAVE BEEN ABLE TO SUCCESSFULLY TRANSFER THREE-FOURTHS OF THEIR COURSES AT HARPER.

THE MOST BENEFICIAL ATE COURSES TAKEN AT HARPER WERE ATE 208, 207, 204, 104 and 203. IN GENERAL THOUGH THE CORE ATE CORE COURSES WERE RATED SOMEWHAT LOWER THAN OTHER CAREER CORE COURSES EVALUATED BY OTHER VO-TECH HARPER ALUMNI. THE COMPUTER APPLICATION ATE COURSES WERE RATED VERY LOW AND MOST STUDENTS SAID THEY HAD NOT BEEN ABLE TO USE ANY OF THE MATERIAL LEARNED IN THESE CLASSES IN THEIR PRESENT SITUATION.

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Purpose

The purpose of this study was to follow former Architectural Technology students in order to evaluate the program and to provide valuable data to aid in future planning of this program. Bob Cormack, Dean of Careers and Academic Planning, along with Urban Thobe, the Associate Dean of the Fine Arts and Design Division, requested the study. Joe Yohanan, Coordinator of the Architecture Technology Program, helped in the design of the study.

The study was not designed to evaluate the cost effectiveness of the program or to evaluate the enrollment in the program. This will have to be done in other parts of the total evaluation. Rather the purpose of the study was to evaluate the Architecture Technology Program through the eyes of those former students who did enroll in various courses in the program.

Population Surveyed

Students who had enrolled in three or more ATE courses between fall 1974 and spring 1977 were identified providing a target population of 190 students. After the follow-up procedures were completed, 41 mail surveys were received and 81 phone interviews were completed yielding 122 total responses and a return rate of 64 percent. If the time constraints haven't been so tight, it would have been preferable to have a higher proportion of returns by mail as this would have provided more complete information.

Even though all these students had completed at least three ATE courses by fall of 1977, 28 of these students are still enrolled at Harper.

Method

The survey instrument, shown in the appendix, was designed by the Office of Planning and Research and the Coordinator of the Architecture Technology Program. In addition, the Associate Dean of the Fine Arts and Design Division, reviewed and agreed to this instrument. This survey instrument was mailed to all of the target population and after three weeks the remaining non-respondents who could be reached were interviewed over the telephone.

The respondents were placed in four different groups depending on their primary goal at Harper. These four groups were centered around the following four goals: Architectural Transfer Program, Architectural Technology, Associate Degree, Architectural Technology-Certificate and General Interest only. The analyses of the data were then carried out using these four groups.

Discussion of Results

Three-fourths of the respondents reported their primary goal was to achieve an Associate Degree in the Architectural Technology program while another eight percent opted for the certificate in the same program. Thus it seems students taking three or more ATE courses is a good method for identifying former students in the Architectural Technology Program. The primary goal of a Vo-Tech Program is to prepare students for a career. To that end, at present, over 60 percent are employed full-time and another 20 percent are employed part-time. Most of the others are enrolled in college. The most frequent job duties reported are drafting and then estimating. A number in a free response added design, layout or planning responsibilities. Also, checked a number of times were such job duties as surveying, carpentry, and electrical skills. Only 12 percent of the duties listed were not related to Architectural Technology. The average salary of the target population employed was $16,000. This is very good compared to other Vo-Tech alumni from Harper.

Although Career programs such as Architecture Technology are not designed to prepare students to transfer. We find many students, nevertheless, continue their education. In this target population, three and one-half percent have already completed a bachelors degree, close to 18 percent are now enrolled at another college and another seven percent are not now enrolled but have taken courses at one time since leaving Harper. In addition, almost a fourth of the population are still enrolled at Harper. In addition to the three and one-half percent who have a bachelors degree, 39 percent plan to achieve a bachelors degree soon or sometime in the future. The Architecture Technology students who have transferred have earned a 2.74 average at their new college which is slightly higher than the 2.66 GPA earned at Harper. Therefore, students in this program seem to succeed well after transferring. Moreover, they have been able to successfully transfer three-fourths of their courses at Harper.

These former students were asked to rate how beneficial the courses were which they enrolled in at Harper. The five top rate ATE courses were ATE 208, 207, 204, 104 and 203. These courses were rated half way between very beneficial and somewhat beneficial. The lowest rated courses were ATE 105, 106, 205 and 206 which are Computer Mathematics and Applications. These courses were rated between some benefit and little benefit. This low rating fits in with the free response question about how students have used their computer skills and very few were able to report these courses were useful.

There were four Engineering and Mathematics courses which were rated higher than the highest rated ATE course. By comparison these ATE courses were rated somewhat lower than other career students have rated their core courses.

A number of these former students have listed courses in Estimating, Civil Engineering, Building Codes, Specifications and the Trades as courses which would have been of great benefit to them now if they had taken them earlier.

In terms of lab fees, these former students felt they were well used for supplies and were reasonable. A number of suggestions were offered concerning improving the Architectural Technology Program.

Major Conclusions

Most of those in the target population taking three or more ATE courses reported they were in the Architecture Technology Associate Degree Program. The employment record of this population is excellent as 60 percent are employed full-time and another 20 percent part-time. Almost all the rest are in college. The most frequent job duties reported were Drafting and Estimating and these duties were followed by Design, Layout, Planning, Surveying, Carpentry and Electrical Skills. Only 12 percent of the job duties reported were unrelated to Architectural Technology. The average salary of these former students is over $16,000 which is another good sign of their success.

Even though Architectural Technology is not designed as a transfer program, many are continuing their education after leaving Harper. Some have already achieved a bachelors degree and some 28 percent have already enrolled in college courses since leaving Harper. Moreover, 42 percent either have or eventually aspire to achieve a bachelors degree in the future. Those who have transferred have performed well achieving a 2.74 GPA at their new college compared to their 2.66 average at Harper. Moreover, they have been able to successfully transfer three-fourths of their courses at Harper.

The most beneficial ATE courses taken at Harper were ATE 208, 207, 204, 104 and 203. In general though, the core ATE core courses were rated somewhat lower than other career core courses evaluated by other Vo-Tech Harper alumni. The Computer Application ATE courses were rated very low and most students said they had not been able to use any of the material learned in these classes in their present situation.

DETAILED RESULTS

Major Goals of Students Who Have Enrolled
in Three or More ATE Courses and Have Left Harper in Last Three Years

Group	Primary Goal of Respondents	Number	Percent
A	Architecture Transfer Program Associate Degree	11	9.0
B	Architecture Technology Associate Degree	92	75.4
C	Architecture Technology-Certificate	9	7.4
D	General interest only	10	8.2
		122	100.0

Employment Status of Survey Population

	ARC Transfer		ATE AAS		ATE Certificate		General Interest		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
Employed full-time	6	54.5	57	62.0	7	77.8	8	80	78	63.9
Employed part-time	3	27.3	15	16.3	1	11.1	1	10	20	16.4
Not employed	2	18.2	20	21.7	1	11.1	1	10	24	19.7
Total	11	100.0	92	100.0	9	100.0	10	100.0	122	100.0

Other Job Duties Related to ATE

	ARC Transfer	ATE AAS	ATE Certificate	General Interest	Total
Design	1	4			5
Equipment design	1	1			2
Design churches		1			1
Interior and exterior design		1			1
Office layout		1			1
Landscape design and land planning		2			2
Registered architect		1			1
Detailer		3			3
Read blueprints		1		1	2
Civil engineering - field engineering	2				2
Stationary engineer		1			1
Sales engineering		1			1
Inspection engineer		1			1
Construction supervisor		1		2	3
Work with petrochemical metal and gypsum		1			1
Roofing, roof decks, and sheet metal			1		1
Sell art and drafting supplies		1			1

Other Job Duties Not Related to ATE

Machine operator		1			1
Custodian			1		1
General factory work		1			1
Mechanics		1			1
Apprentice too and die maker		1			1
Work on boats		1			1
Freight agent		1			1
Truck driver		1		1	2
Ramp service		1			1
Food store worker		1			1
Resident manager and trainer for horses		1			1
Salesman	1	3			4
Computer oeprator		1			1
Accounting and data processing			1		1
General manager		2			2
Assistant manager		1			1
Secretary		1			1
Unrelated field not specified		1			1
Mail handler	1				1

	ARC Transfer		ATE AAS		ATE Certificate		General Interest		Total	
Salary full-time	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
$ 5,000 - $ 7,000			2	3.9					2	2.8
7,000 - 9,000			1	1.9					1	1.4
9,000 - 10,000	1	16.7	3	5.8					4	5.6
10,000 - 12,000	1	16.7	5	9.8	1	14.3			7	9.9
12,000 - 15,000	2	33.3	11	21.7	5	71.4	2	28.6	20	28.2
15,000 20,000			17	33.4	1	14.3	3	42.8	21	29.6
20,000 - 25,000	1	16.7	10	19.6			1	14.3	12	16.9
25,000 - 30,000	1	16.7					1	14.3	2	2.8
Over $30,000			2	3.9					2	2.8
	6	100.0	51	100.0	7	100.0	7	100.0	11	100.0
Mean Salary	$16,250		$16,550		$13,714		$18,500		$16,444	
Educational Achievement										
Bachelors degree	2	20	2	2.2					4	3.4
Presently enrolled	4	40	17	18.9					21	17.8
Not now enrolled but have taken courses	2	20	3	3.3	1	11.1	2	20	8	6.8
Not enrolled in additional courses	1	10	43	47.8	6	66.7	7	70	57	48.3
Still at Harper	1	10	25	27.8	2	22.2	1	10	28	23.7
	10	100	90	100.0	9	100.0	10	100	118	100.0
Present Educational Goals										
Achieved bachelors degree	1	9.1	2	2.3					3	2.6
Planning to achieve bachelors soon	5	45.4	18	20.7	1	12.5	1	10	25	21.6
Plan to achieve bachelors someday	4	36.4	15	17.2			1	10	20	17.2
Plan to take more courses but not a bachelors	0		10	8.1 11.5	2	25.0	2	20	14	12.1
Unclear plans	0		24	27.6	1	12.5	4	40	29	25.0
No plans to continue	1	9.1	18	20.7	4	50.0	2	20	25	21.5
	11	100.0	87	100.0	8	100.0	10	100	116	100.0

Cost of College	ARC Transfer N	ARC Transfer Pct.	ATE AAS N	ATE AAS Pct.	ATE Certificate N	ATE Certificate Pct.	General Interest N	General Interest Pct.	Total N	Total Pct.
Less than $300							1	100	1	7.1
$ 1,000 - $ 1,500			3	33.4					3	21.4
$ 1,500 - $ 2,000	3	75	1	11.1					4	28.6
$ 2,000 - $ 2,500	1	25	2	22.2					3	21.4
$ 2,500 - $3,000	0		1	11.1					1	7.1
Over $ 3,000	0		2	22.2					2	14.4
	4	100	9	100.0			1	100	14	100.0
Mean cost	$1,875		$2,194				$300		$1,968	

Percentage of Courses Transferred from Harper by Former ATE Students

Courses Transferred	ARC Transfer N	ARC Transfer Pct.	ATE AAS N	ATE AAS Pct.	ATE Certificate N	ATE Certificate Pct.	General Interest N	General Interest Pct.	Total N	Total Pct.
0 - 20%			1	4.7			1	100	1	100
20 - 40%			1	4.7						
40 - 60%			4	19.1						
70 - 80%			3	14.3						
80 - 90%	1	11.0	1	4.8						
All but two or three courses	5	55.7	6	28.6						
All but one course										
Transferred all courses	3	33.3	5	23.8	1	100				
	9	100.0	21	100.0	1	100	1	100	1	100
Average percent	91.4		75.0		100		100		78.4	

Grade Comparison of ATE Students Transferring
GPA at New College vs. GPA at Harper

GPA Range	ARC Transfer				ATE AAS				ATE Certificate			
	Harper		At new College		Harper		At new College		Harper		At new College	
Over 3.00	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
Over 3.00	0	0	1	12.5	7	41.2	3	17.7	0	0	0	0
2.5 to 3.00	3	37.5	3	37.5	8	47.0	10	58.8	0	0	1	100
2.00 to 2.50	5	62.5	4	50.0	1	5.9	4	23.5	0	0	0	0
Under 2.00	0	0	0	0	1	5.9	0	0	1	100	0	0
Total	0	100.0	8	100.0	17	100.0	17	100.0	1	100	1	100
Average GPA	2.37		2.55		2.87		2.79		1.96		3.00	

GPA Range (cont.)	General Interest				Total			
	Harper		At new College		Harper		At new College	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.
Over 3.00	1	50	1	50	8	28.6	5	17.9
2.5 to 3.00	0	0	0	0	11	39.3	14	50.0
2.00 to 2.50	0	0	1	50	6	21.4	9	32.1
Under 2.00	1	50	0	0	3	10.7	0	0
Total	2	100	2	100	28	100.0	28	100.0
Average GPA	2.40		2.90		2.66		2.74	

Evaluation of Courses Taken at Harper

*Benefit Rating: 2.00=of great benefit; 1.00=of some benefit; 0.00=of little or no benefit

Courses taken at Harper	ARC Transfer		ATE AAS		ATE Certificate		General Interest		Total	
	N	*BR	N	*ER	N	*BR	N	*BR	N	*BR
EGR 212			1	2.0					1	2.00
Math 201	2	1.5	5	2.0					7	1.86
Math 105	2	1.5	5	1.8					7	1.71
ARC 206	1	1.0	4	2.0			1	1.0	6	1.67
EGR 150	2	1.0	3	2.0					5	1.60
ATE 208	2	2.0	20	1.5	1	2.0	1	1.0	24	1.54
ATE 207	3	2.0	26	1.46	1	2.0			30	1.53
ATE 204	2	2.0	23	1.48			1	1.0	26	1.50
ATE 104	3	1.7	29	1.48			1	1.0	33	1.49
ATE 203	2	2.0	24	1.50			2	.5	28	1.46
Math	4	1.5	20	1.55			2	.5	26	1.46
SOC 205			1	1.40					1	1.40
ATE 201	2	2.0	26	1.38			1	0	29	1.38
ATE 103	2	2.0	29	1.38	2	.5			33	1.36
ATE 202	2	2.0	25	1.36			1	0	28	1.36
ARC 205	1	1.0	4	1.5			1	1.0	6	1.33
Math 102			6	1.5			1	0	7	1.29
Math 103	1	0	8	1.6			1	0	10	1.28
Math 104	3	1.3	6	1.5			1	0	10	1.22
ATE 102	3	1.0	28	1.25	1	2.0	3	.67	35	1.20
ARC 102	3	1.3	1	1.0			1	1.0	5	1.18
Physical Science	2	1.0	3	1.3			1	1.0	6	1.17
ATE 101	4	1.0	30	1.23	2	1.0	2	.5	38	1.16
Speech	1	1.0	6	1.0			1	2.0	8	1.13
ATE 209	1	1.0	3	1.0					4	1.00
ARC 201	1	1.0							1	1.00
Math 101			10	.90			1	1.0	11	.91
Sociology	3	1.3	12	.75			1	1.0	16	.88
Art 110	3	1.0	4	.75					7	.86

How Former Students Have Used Computer Skills
Learned at Harper in Their Present Situation

Haven't used any computer skills learned - 69
Didn't take it -4
Only used a little bit - 3
Haven't used it, but it was worthwhile - 2
Wasn't in computer dept.
Works in terminal room at Harper.
I have used the computer in other classes such as Physics. I tried to take ATE 205-6, but classes were cancelled.
I am a systems programmer and without the primary courses (ATE 104 & 105) I might have not decided to continue in this area.
Haven't applied it in work but the Fortran came in handy in a structure course at Bradley Univ. last semester. I am currently a senior.
Not at all. In the future, however I'm hopeful of applying the computer to typical design of range hood canopies
As of now I have not had a chance to use my computer skills, but plan to get a minor in the field starting next fall (78).
The basic knowledge of computers is important to know but its seldom used unless employed at a large firm. I feel more outside classes like Real Estate, Model Making, Psy. for the Architect, Basic IND and Basic logic in handling the client should be emphasized or required. As electives I don't feel the student will volunteer to take it.
The skill that I got the most value from via computer Math was an understanding of Logic which spans across virtually all technical field. I thought it was very valuable. (Logic as it applies to an efficient flow of info through variable programs of Fortran).
They applied to both the small business computer I use, and to the small computer that are installed in the houses I build to handle and monitor its energy consumption.
I think instead of applying computer skills directly to Architecture, we should have learned the basic format of WAIT.V and Fortran. After learning all these skills we could then apply it to Architecture.
Unless you may preceed into a large computer firm in Architecture it is of little value, but interesting.
I haven't used them, but I like having the experience because I feel that in the future, I might be using one and the skills learned in your program will give me a head start.
Keypunch for some classes.
Operates a computer
Got interested in computers here at Harper - now he is a computer operator.
Use for programming on my job.
Earned him a promotion.
Worked 2 yrs. in architect firm.
In the computer field.
Will help in my business.
Used it at Bradley in structure studies.
Electronics draftsman has helped him very much.
Use them on the job - its one of the main reasons I got it.
I'm learning how to imput buildings - It's very useful.
I'll need them at a later date at the school I'm now attending, but haven't used them yet.
They are very helpful.
Used computers to add on to the house he is in now.
Still have to finish it.
Key punch for some classes.
Operates a computer.

List of Employers by Primary Goal of Student when at Harper

Architecture Transfer Program Associate Degree

Molex Inc. - 222 Welington Ct. Lisle, Il.
Plywood Minnesota - 1601 Algonquin Mt. Prospect
Jewel Foods - 1507 Waukegan Rd. Glenview
Honeywell - 1500 W. Dundee Arl. Hts.
Plum Grove Farm - Palatine
Coca Cola - North Ave. & Dumham St. Charles
Fluid Line Engineering - Rosemont
Elk Grove Post Office
Gustar-Braun - 436 Frontage Northfield

Architecture Technology Associate Degree

Murry & Moody Engineers & Surveyors - 933 S. Plum Grove Palatine
G & C Engineers Inc. - 1870 Busse Hwy. Des Plaines
Crane Fullview Door Co. - 1201 Crane Dr. Deerfield
Wheaton Import Motors LTD - Gary & Geneva Rds. Wheaton
Village of Mt. Prospect - 11 S. Pine Mt. Prospect
Northwestern Univ. Chicago Campus
Continental Can - 1320 Hilltop Itasca
Village of Buffalo Grove - 50 Raupp Blvd. Buffalo Grove
Doane MFG. Co., Air Systems Div. - 588 E. 40th. St. Holland, Mich.
Mohawk Concrete Construction - 1575 Rowhling Rd. Rolling Meadows
Medx Inc. - 501 S. Vermont Palatine
Bertog's Landscaping - 2314 Sussex Ln. Northbrook
Kemper Ins. (real estate dept.) - Long Grove
A.M. Kinney Assoc. Inc. - 801 Davis Evanston
Don Herman Gaul & Assoc. - 394 Virginia St. Crystal Lake
Self Employed - Star Route B Box 11 Gamaliel, Ark.
Meland Association Inc. - 403 Washington Blvd. Mundelein
Paintin Place - 407 North St. Normal
Klaucens & Assoc. - 3211 Arnold Ln. Northbrook
Associated Church Builders (Arch. Design Dept.) - 1806 C Hicks Rd. Rolling Meadows
Plum Grove Farm Arabians - 2034 Meacham Palatine
Frank Martin Realty - Warrenville
Staalscen Construction - 4639 W. Armitage Chicago
Midway Construction - Rand Rd. Long Grove
Business Interiors - Des Plaines
Ekco Housewares - Franklin Park
Ill. Bell Telephone Co. - Downtown Chicago
Great Lake Run Way & Engineering - 1625 E. Algonquin Rd. Arl. Hts.
Victor Lancheros (self employed) - 927 Western Ave. Northbrook
Olsen & Assoc. - Palatine
A - Alarm - Mt. Prospect
Baxter - Travenol Lab - Deerfield
Dominicks Fine Foods - Rolling Meadows
Applied Engineering - Rolling Meadows
U.P.S. - Palatine
American Airlines - O'Hare Airport
Airport Systems - Itasca
Ed Solecki - Chicago
Hills Mechanic Co. - Carpentersville
Jewel Foods - Rt. 68 & Buffalo Grove Rd. Buffalo Grove
North American Heating & Air Cond. - Hoffman Estates

Fearn International - Franklin Park
Walter Sobel Assoc. - 2N Riverside Plaza Chicago
Johnson Fire Proof Door - 10500 Lunt Ave. Rosemont
Roper I.B.G. - Aptakisic Rd. Wheeling
Decks Inc. - 3960 Industrial Ave. Rolling Meadows
T.A. Bolger Realtors Inc. - 780 W. Golf Rd. Schaumburg
F.H. Bonn - Arl. Hts.
Meidart Motor Services - Des Plaines
Self Employed - Ormand, Fla.
Alfa Technical Services - Carol Stream
Metcaly & Eddie - Des Plaines
Duffy-Evans Plywood & Lumber - 15 N. Clifton Park Ridge
J.C. Licht - Mt. Prospect
Atlantic Building Systems - 135 16th. St. Atlanta, Ga.
Ray Slinger - 83 Westland Boston, Mass.
Sears Roebuck & Co. - Elk Grove Village
Ill. Dept. of Transportation - Schaumburg
Cass & Lou's Restaurant - Skokie
Rogers Iron Works - 11850 Franklin Ave. Franklin Park
Temperature Maintenance - Chicago
Totem Lumber Co. - Fox River Grove
Bi-Linqual Center - Arl. Hts.
United Air Lines - O'Hare Airport
Michael Graft Contractor - Barrington
Cardinal Tool & Manu. - Palatine
North American Heating - Hoffman Estates
American Airlines - O'Hare Airport
George B. Anderson & Assoc. - 1350 Northwest Hwy. Mt. Prospect
George Harhen & Co. - Bellvidere
Classic Boats - Roselle

Architecture Technology - Certificate

The Hoffman Group, Inc. - 1070 N. Roselle Rd. Hoffman Estates
Brown & Kerr, Inc. - 1020 S. Plant Rd. Wheeling
Pepper Construction - Barrington
Handleman Co. - Elk Grove
Genatron Inc. - Elk Grove
Northshore Decorating - Evanston
Cutler & Hammer - Itasca
United Methodist Church - Arl. Hts.

General interest only

Ewald & Assoc. - Coventry Green Crystal Lake
Altra Plastics - Elk Grove
The Hoffman Group Inc. - 1070 Roselle Rd. Hoffman Estates
Edison Construction - Niles
Prudential Con. & Dev. - Glenview
Aquarius Metal Products - Elk Grove Village
Heller Lumber Co. - Arl. Hts.
Village of Schaumburg - Schaumburg
Carlson Construction - Elk Grove

Suggestions for Ways in Which Harper Could Improve Its Architecture Technology Program

Offer more of the courses at night - 3
Rooms with windows and few more teachers.
More emphasis on design than drafting.
Find out what schools accept credits.
The courses and instructors were all very good in my opinion.
In the classes I took we started with basics and didn't go much farther - If you are going to teach basics, cut the time spent to a minimum.
Have more of a variety of subject matter in the Architectural Technology programs.
We just kept drawing a lot of the same drawings over and over.
Not at this time. It's O K
More practical design problems - quite a bit of time was put on major office building design.
Pretty good - don't feel I'm qualified to answer.
I would have liked to have been involved in more residential type projects with emphasis on good design and flow, but the idea of one major building project such as an office or apartment building is a good one.
Make credits transferable to other colleges - engineering programs.
Offer more engineering classes such as strength of materials, truss analysis.
Better teachers.
Tech program seems O K - Art courses to teach Arch. rendering.
Couldn't transfer courses.
Require more Math background - I found that I was behind in the new ciriculum because Math wasn't actually part of the curriculum at Harper
More practical instruction and exposure, there are too many "textbook" engineers. Today not enough engineers with construction experience.
More emphasis on Mechanical, Electrical and Plumbing in structure-the various applications of each one.
Add in more solar related courses.
I feel that the Architectural Tech. courses were useless. You cannot get a job as an architect or inspector. It would help to have some design course and some basic courses for inspecting.

Provide better counseling especially for transfer students. Most tech courses do not transfer. More emphasis on design.
By making more aware of the business opportunities available upon graduation with job placement if possible.
Just drawing - Didn't teach me much - S I U's Arch program should be used as an example of a good program.
Have instructors explain and teach practical information not just take a drawing and have students copy it with no idea of how information was achieved.
Not familiar with present program.
Do not recruit students - let them choose what classes to take. When I completely wasted my time in these classes I took, I wish I could have transferred classes, as I had always planned on transferring.
Only that the faculty be of the profession in Building Design and construction.
Make sure that the students understand what has been taught.
Require more of the average student. In general, upgrade standards. Have a limited amount of work due every two weeks or so, so that students can't let it all go till the end (and then have some requirements dropped, as now happens).
Remove it from fine arts and design - we're getting the shaft. Have more textbooks available at the bookstore. Have ATE 101 & 103 be much more structured, with alot more copying (with explanations) instead of "Go and draw me a fireplace section".
Estimating class. They cancelled it because they couldn't get enough. Did too much drawing - more lectures - 2nd. yr. to repetitious-use different aspects of instructions.

One of the best around.
Make people more aware of the transfer program over the other programs-because its very hard to get into it. They don't explain it to the students. Had a hard time and will lose courses when I do transfer. They aren't interested in the associate degree.
More varied courses - courses now are too basic.
Better counseling.
By taking students in the field into the Architectural program.
Building codes and Math.
More construction material courses and more surveying courses.
Teachers could be better.
Assoc. degree could have something to find jobs.
Get rid of some of the teachers - not very good.
Diversify in the field - interested in Arch. rendering.
Cover more material in the second year.
Offer more classes at night. They cancelled the evening class because of enrollment.
Let the student know what is mandatory. I was led to believe I needed more Math.
More detailing - too much drafting.
It is a good program except for the computers - hard to memorize codes.
More info available so they can transfer more smoothly.
Improve the construction courses.
More tours of buildings in Chicago.
Complete restruction of the whole program.
In the second year classes introduce the use of model buildings in design so students can see in 3-D what they think they are designing. Gives a clean understanding of spaces and how structure is and can be used.
Try and find out which way the students are going after their classes at Harper and then emphasize on the appropriate areas for those students. Such as the four areas I've listed below for the construction field-Building Codes, Zoning Ordinances, Estimating, and Specifications.
As above, basic IND should be applied but not by IND teachers - More emphasis on perspectives and rendering. Explanations of materials - what they are made of, how they work and why. Emphasis on model making (I feel one understands how and why it's constructed, better this way).
In the ATE program, relate learned concepts more to the real world, to make it clear what skills are important in what jobs that Harper is training it's non-transfer students for.
Have more visual aids.
Turn it into a 4 year program.
For a student planning on transferring to a construction major or engineering, you are going to need Calculus, Physics, Business Law, Accounting, Economics, Surveying, Statics, Hydraulics, and any kind of starting background in materials would help.
Be stronger in statics, plumbing, electrical, heating, and ventilating.

APPENDIX

William Rainey Harper College
Algonquin and Roselle Roads
Palatine, Illinois 60067
312-397-3000

February 20, 1978

Dear Architectural Technology Student:

Five years ago a survey questionnaire was sent to approximately three hundred students who took three or more courses in the Architectural Technology Program. Since then, a lot has happened throughout the Architectural building field and we want to know what the impacts are, related to present and future trends in employment. The impacts that we have been addressing ourselves to are energy conservation and inflation applicable to construction cost overruns. In order to anticipate the dynamic changes required for an up to date program in Architectural Technology, your assistance is important.

We would appreciate a few minutes of your time to complete this survey form. We have enclosed a stamped self-addressed return envelope for your convenience.

We are very anxious to hear from those students who responded to our first survey conducted five years ago. Those students who have taken classes since then would provide us with information which is useful for curriculum planning and modifications, new course offerings, and what employment opportunities are for the present and near future.

If you have any questions regarding this questionnaire, please contact the Architectural faculty or our counselor, Janet Friend, at 397-3000, extension 440.

Very truly yours,

Joseph Yohanan
Coordinator of Architectural Technology

JY:cjp

Enclosure

HARPER COLLEGE FORMER ARCHITECTURAL STUDENT
FOLLOW-UP QUESTIONNAIRE

NAME _____

PERMANENT ADDRESS _____

CITY AND STATE _____ ZIP CODE _____

TELEPHONE _____

Please place a (✓) beside those items which are applicable and provide the appropriate remark where indicated. Your responses will be appreciated.

I. Which program did you follow while at Harper? Check (✓) one.

_____ A. Transfer Architectural Design Program
_____ B. Occupational Architectural Technology Associate Degree Program
_____ C. Occupational Architectural Technology Certificate Program
_____ D. Took Architectural Design or Architectural Technology courses for general interest only.
E. Other goal (specify) _____

EMPLOYMENT SECTION

If you are employed, answer items II, III and IV; otherwise skip to item V.

II. I am presently employed (✓) full-time, (✓) part-time

Name of Employer _____

Address of Employer _____

Location _____ Zip Code _____

III. My duties include (check those that are applicable):

_____ A. Drafting
_____ B. Estimating
_____ C. Specifications
_____ D. Surveying
_____ E. Concrete work
_____ F. Carpentry
_____ G. Masonry work
_____ H. Plumbing
_____ I. Heating Ventilating and Air Conditioning
_____ J. Electrical
_____ K. Insulation
_____ L. Escavating
_____ M. Solar Energy Contractor
_____ N. Computer Applications
_____ O. Building Departments
_____ P. Painting
_____ Q. Dry wall or plastering
_____ R. Manufacturing of Building Products
_____ S. Kitchen Layouts or Installers
_____ T. Purchasing of Building Products
_____ U. Iron Workers
_____ V. Other (please specify) _____

IV. Annual salary range for full-time

_____ A. $ 5,000 - $ 7,000
_____ B. $ 7,000 - $ 9,000
_____ C. $ 9,000 - $10,000
_____ D. $10,000 - $12,000
_____ E. $12,000 - $15,000
_____ F. $15,000 - $20,000
_____ G. $20,000 - $25,000
_____ H. $25,000 - $30,000
_____ I. Over $30,000

EDUCATIONAL GOALS AND STATUS

V. What has been your educational achievements since leaving Harper College? Check (✓) one.

_____ A. I have achieved a bachelors degree. Specify college and major field _____

_____ B. I am presently enrolled at another college. Specify college and major field and number of credit hours accumulated so far.

_____

_____

_____ C. I am not now enrolled in college but I have taken courses at another college since leaving Harper. Specify college and major field and credit hours accumulated. _____

_____ D. I have not enrolled in any additional educational offerings since leaving Harper.

VI. What are your present educational goals? Check (✓) one.

_____ A. I have achieved a bachelors degree.

_____ B. I am planning to receive a bachelors degree within the near future. Major field _____

_____ C. I hope to achieve a bachelors degree some time in the future. Major field _____

_____ D. I plan to take further courses but not toward a degree. Area of interest. _____

_____ E. My educational plans are unclear at this time.

_____ F. I have no plans to continue my education at this time.

EDUCATION SECTION

If you have been enrolled full-time at a college or university since leaving Harper, please answer the following three questions, otherwise skip to item X.

VII. What portion of the course which you took at Harper were you able to transfer? If you don't know for sure, make the best guess you can.

_____ A. 0 - 20%
_____ B. 20 - 40%
_____ C. 40 - 60%
_____ D. 70 - 80%
_____ E. 80 - 90%
_____ F. All but 2 or 3 courses
_____ G. All but 1 course
_____ H. Transferred all courses

VIII. What is or was your approximate cumulative grade point average on a 4.0 basis at the college you now or did attend after leaving Harper. Check (✓) the closest GPA.

"A"

_____ 4.0 _____ 3.8 _____ 3.4 _____ 3.2

"B"

_____ 3.0 _____ 2.8 _____ 2.6 _____ 2.4 _____ 2.2

"C"

_____ 2.0 _____ 1.8 _____ 1.6 _____ 1.4 _____ 1.2

"D"

_____ 1.0 _____ Less than 1.0

IX. How much does or did it cost you or your family per year to attend this present or former college since leaving Harper. Include tuition, books, room and board and personal expenses.

_____ A. $1,000 - $1,500
_____ B. $1,500 - $2,000
_____ C. $2,000 - $2,500
_____ D. $2,500 - $3,000
_____ E. Over $3,000

X. Rate those courses taken at Harper as to their benefit to you on the job, in college, or in the community. Check (✓) in the appropriate column for each course.

Of great benefit	Of some benefit	Of little or no benefit	Didn't take course	
_____	_____	_____	_____	1. ATE 101 Introduction to Architectural Technology I
_____	_____	_____	_____	2. ATE 102 Introduction to Architectural Technology II
_____	_____	_____	_____	3. ATE 103 Building Materials Technology I
_____	_____	_____	_____	4. ATE 104 Building Materials Technology II
_____	_____	_____	_____	5. ATE 105 Computer Mathematics for Architectural Technology I
_____	_____	_____	_____	6. ATE 106 Computer Mathematics for Architectural Technology II
_____	_____	_____	_____	7. ATE 201 Comprehensive Building Project I
_____	_____	_____	_____	8. ATE 202 Comprehensive Building Project II
_____	_____	_____	_____	9. ATE 203 Construction Problems I
_____	_____	_____	_____	10. ATE 204 Construction Problems II
_____	_____	_____	_____	11. ATE 205 Computer Graphics and Optimization
_____	_____	_____	_____	12. ATE 206 Computer Applications in Architecture
_____	_____	_____	_____	13. ATE 207 Bevavior of Architectural Material I

X. (Continued)

Of great benefit	Of some benefit	Of little or no benefit	Didn't take course		
_____	_____	_____	_____	14.	ATE 208 Behavior of Architectural Materials II
_____	_____	_____	_____	15.	ATE 209 Building Construction Principles for Real Estate
_____	_____	_____	_____	16.	ARC 101 Basic Design I
_____	_____	_____	_____	17.	ARC 102 Basic Design II
_____	_____	_____	_____	18.	ARC 201 Design I
_____	_____	_____	_____	19.	ARC 202 Design II
_____	_____	_____	_____	20.	ARC 205 Architectural History I
_____	_____	_____	_____	21.	ARC 206 Architectural History II
_____	_____	_____	_____	22.	ARC 203 Building Construction I
_____	_____	_____	_____	23.	ARC 204 Building Construction II
_____	_____	_____	_____	24.	Solar Energy Architecture Seminars
_____	_____	_____	_____	25.	Sociology
_____	_____	_____	_____	26.	Psychology
_____	_____	_____	_____	27.	Physical Science
_____	_____	_____	_____	28.	Speech
_____	_____	_____	_____	29.	Art
_____	_____	_____	_____	30.	Math
_____	_____	_____	_____	31.	Anthropology
_____	_____	_____	_____	32.	Philosophy and Humanities
_____	_____	_____	_____	33	Physical Education
_____	_____	_____	_____	34.	Art 110
_____	_____	_____	_____	35.	Art 111
_____	_____	_____	_____	36.	PHY 121
_____	_____	_____	_____	37.	PHY 122
_____	_____	_____	_____	38.	EGR 150
_____	_____	_____	_____	39.	EGR 212
_____	_____	_____	_____	40.	SOC 101
_____	_____	_____	_____	41.	SOC 205
_____	_____	_____	_____	42.	MTH 101
_____	_____	_____	_____	43.	MTH 102
_____	_____	_____	_____	44.	MTH 103
_____	_____	_____	_____	45.	MTH 104
_____	_____	_____	_____	46.	MTH 105
_____	_____	_____	_____	47.	MTH 201
_____	_____	_____	_____	48.	English
_____	_____	_____	_____	49.	Other: _____
_____	_____	_____	_____		Other: _____

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Evaluation of Courses Taken at Harper (continued)

	ARC Transfer		ATE AAS		ATE Certificate		General Interest		Total	
	N	*BR	N	*BR	N	*BR	N	*BR	N	*BR
Solar Energy Arch Seminars	2	1.0	14	.86			1	0	17	.83
ARC 101	3	1.3	1	0			2	.5	6	.82
English	4	1.25	22	.73			2	1.0	28	.82
Physical Education	1	.5	3	1.0					5	.80
PHY 121	2	.5	3	1.0					5	.80
ART	3	1.0	10	.67			2	1.0	15	.78
Anthropology			5	.77					5	.77
Soc 101	3	1.3	8	.50			1	1.0	9	.75
Physchology	1	1.0	13	.69			1	1.0	15	.73
ATE 205	3	1.3	8	.50					11	.72
ATE 105	4	1.5	31	.64	1	0			36	.72
ATE 106	4	1.5	27	.59					31	.71
Philosophy and Humanities	2	1.0	16	.69			1	0	19	.69
Art 111	1	1.0	1	0					2	.50
Phy 122	1	0	1	0					2	0

Courses, if they had been taken while at Harper, would have benefited students

	ARC Transfer	ATE AAS	ATE Certificate	General Interest	Total
	N	N	N	N	N
Building codes	2	14			16
Zoning ordinances	1	12	1	1	14
Estimating	2	15	1	1	19
Speicifications	1	14	1		16
Solar energy applications	3	12		1	16
Plumbing	2	11		1	14
Heating, ventilating and air conditioning		10		1	11
Electircal		12		1	13
Civil		15	1	1	17
Energy conservation	3	11		1	15
Consolidation of above subjects-one course		10		1	11
Land use planning and landscape architecture		2		1	3
More extensive drafting		1		1	2
Interior design		1			1
Model making		1			1
Real estate		1			1
Calculus, physics, economics and accouting		1			1
Architectural history		1			1
Structural technology		1			1
Environmental systems		1			1
Architectural programming		1			1
Constuction administration		1			1
Construction docuements		1			1
Working drawings		1			1
More design courses		1			1

Evaluation of lab fees charged in ATE courses	N	% Yes	N	% Yes	N	% Yes	N	% Yes	N	% Yes
Fee was more for maintenance of parallel rules, blueprint paper and amonia	3	66.6	24	80.3	1	100	3	66.6	31	80.7
Day class lab fees were reasonable	4	100.0	20	75.0			2	50.0	26	76.9
Evening class lab fees were reasonable	3	100.0	17	18.6	1	100	3	50.0	24	75.0
Some instructiors used more supplies than others	3	33.3	23	47.8	1	100	2	50.0	29	48.3
Fee provided more supplies than could use	3	33.3	18	33.3	1	0	2	0	24	29.2
Fee was excessive	3	0	22	27.3	2	50	2	0	29	24.1

Analysis of Job Duties

Duties	ARC Transfer Number	ATE AAS Number	ATE Certificate Number	General Interest Number	Total Number
Drafting	2	28	3	4	37
Estimating	1	12	1	4	18
Surveying	1	8	0	2	11
Electrical	2	7	1	0	10
Carptentry	1	7	0	2	10
Specifications	1	6	1	1	9
Heating, Ventilating, Air Conditioning	1	6	0	0	7
Painting	0	5	0	2	7
Masonry work	1	3	0	1	5
Plumbing	1	4	0	0	5
Kitchen layouts or installed	2	3	0	0	5
Concrete work	1	3	0	0	4
Insulation	1	2	1	0	4
Dry wall or plastering	0	2	0	2	4
Purchasing of building products	0	2	0	2	4
Excavating	0	2	0	1	3
Solar Energy Contractor	0	2	0	0	2
Computer Applications	1	1	0	0	2
Building departments	0	1	1	0	2
Iron workers	0	2	0	0	2

XI. Are there courses or subject matter which, had they been included in your curriculum, would have benefited you now on your job, in college, or in your community?

_____ A. Building Codes
_____ B. Zoning Ordinances
_____ C. Estimating
_____ D. Specifications
_____ E. Solar Energy Applications
_____ F. Plumbing
_____ G. Heating Ventilating and Air Conditioning
_____ H. Electrical
_____ I. Civil - (Roads - parking - site grainage, utilities)
_____ J. Energy Conservation
_____ K. Other _____
_____
_____

XII. Check all those that apply to lab fees paid for courses.

1.	The fee was used more for Maintenance of Parallel Rules, Blueprint Paper and Amonia.	_____ Yes	_____ No
2.	The fee was used more for supplies that the individual student used in instruction.	_____ Yes	_____ No
3.	The fee paid was excessive.	_____ Yes	_____ No
4.	Some instructors provided more supplies than others.	_____ Yes	_____ No
5.	Day class lab fees were reasonable.	_____ Yes	_____ No
6.	Evening class lab fees were reasonable	_____ Yes	_____ No

XIII. Do you have any suggestions for ways in which Harper could improve its Architectural program?

_____
_____
_____
_____

XIV. Describe how you have used your computer skills learned at Harper on your job or in your continuing studies.

_____
_____
_____
_____